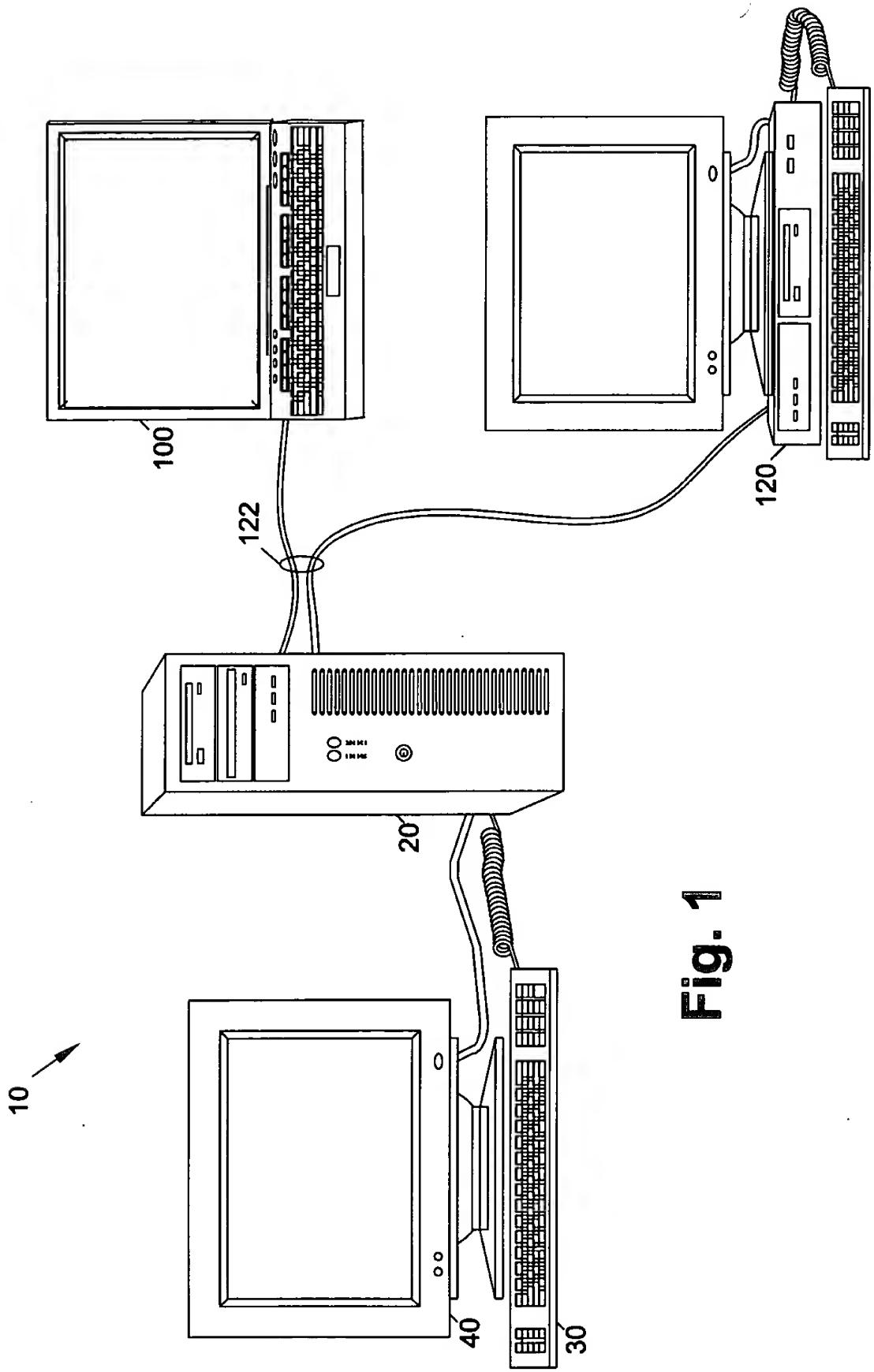

Fig. 1

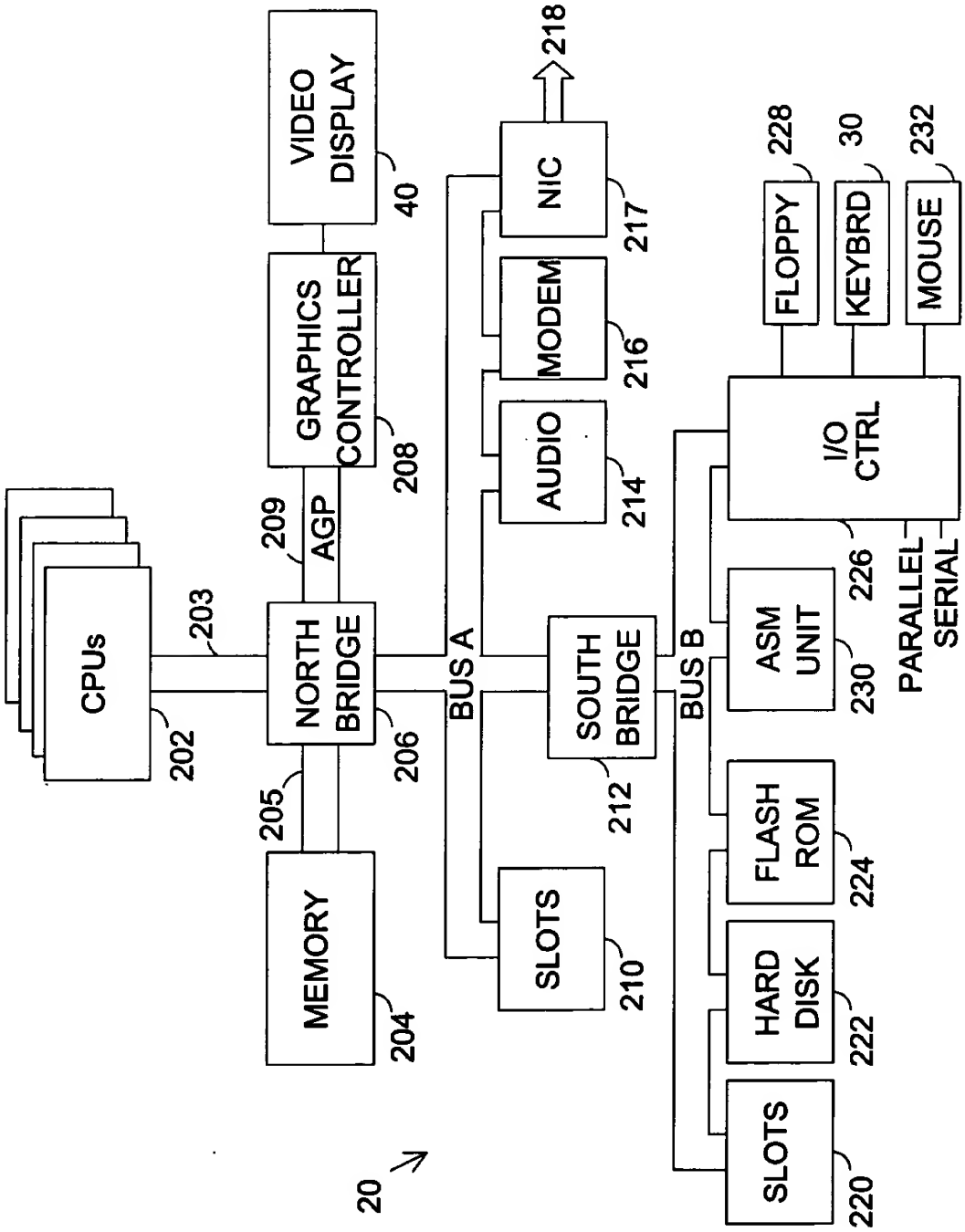
20
CPUs
202
203
NORTH BRIDGE
206
205
MEMORY
204
209
AGP
GRAPHICS CONTROLLER
208
VIDEO DISPLAY
40
BUS A
SOUTH BRIDGE
212
SLOTS
210
NIC
217
218
MODEM
216
AUDIO
214
BUS B
I/O CTRL
226
PARALLEL
SERIAL
ASM UNIT
230
FLASH ROM
224
HARD DISK
222
SLOTS
220
FLOPPY
228
KEYBRD
30
MOUSE
232

Fig. 2

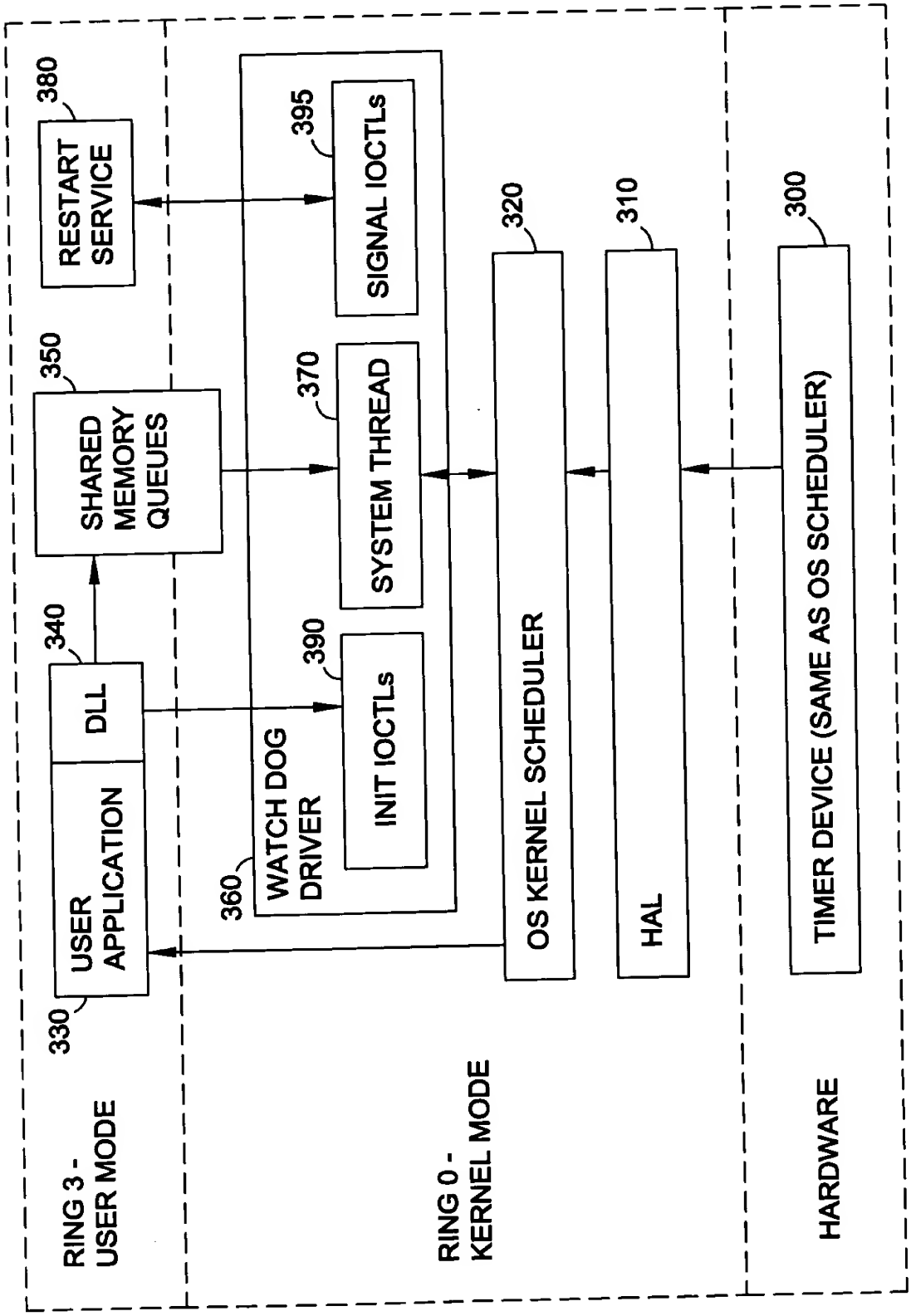
RING 3 - USER MODE
RING 0 - KERNEL MODE
HARDWARE
USER APPLICATION
330
DLL
340
SHARED MEMORY QUEUES
350
RESTART SERVICE
380
WATCH DOG DRIVER
360
INIT IOCTLs
390
SYSTEM THREAD
370
SIGNAL IOCTLs
395
OS KERNEL SCHEDULER
320
HAL
310
TIMER DEVICE (SAME AS OS SCHEDULER)
300

Fig. 3

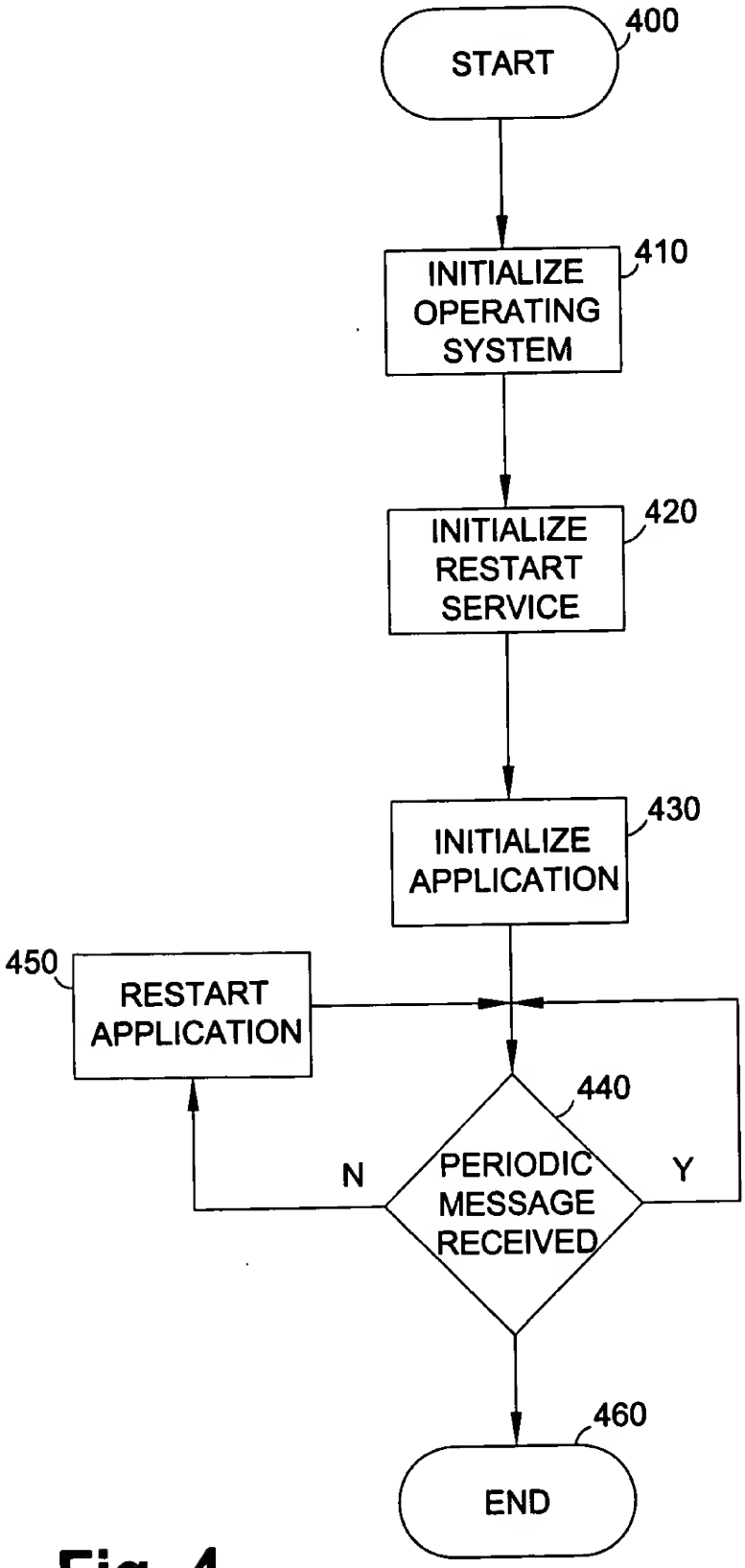
400
START
410
INITIALIZE OPERATING SYSTEM
420
INITIALIZE RESTART SERVICE
430
INITIALIZE APPLICATION
450
RESTART APPLICATION
440
PERIODIC MESSAGE RECEIVED
N
Y
460
END

Fig. 4